Ryan Hui

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EXPERIENCE

Head of Computer Science Department   **Tonbridge, UK**
Leading the Computer Science Department in The Judd School   *Sept 2019 - Jul 2021*

- Create and implement the Computer Science scheme of work at the KS3 and GCSE level
- Ensure that all students are on track to progress in Computer Science
- Plan and implement the transition from in class to remote learning
- Manage the Computer Science departments budget to purchase learning resources, teacher training courses, and equipment
- Train Computer Science teachers

Computer Science Teacher   **Tonbridge, UK**
Teaching Computer Science in the Judd School   *Sept 2018 - Jul 2021*

- Teach KS3 and GCSE Computer Science following the UK national curriculum
- Run coding clubs with an emphasis on using Microbits, and computer graphics
- Plan and run the UK Bebras challenge and the British Informatics Olympiad

Mathematics Teacher   **Tonbridge, UK**
Teaching Mathematics in The Judd School   *Sept 2017 - Jul 2021*

- Teach KS3, GCSE and A-level mathematics following the UK national curriculum
- Run puzzle club to encourage students to practice their puzzle solving skills
- Lead yearly Junior Maths Team Challenges of which 8 students reached the final round (ie. top 50 in the country)

EDUCATION

University of Alberta   **Edmonton**
Bachelor of Education Major in Mathematics and Minor in General Sciences   *2015–2017*

McGill University   **Montreal**
Bachelor of Science in Computer Science and Mathematics   *2010–2014*

Vanier College   **Montreal**
DEC in Pure and Applied Sciences   *2008–2010*

PROJECTS

Automating Teacher Tasks During the Pandemic   *Jan 2020 – July 2020*

- Ad hoc Python scripts which scrapes www.mymaths.co.uk and integralmaths.org for pupil data and stores them into excel spreadsheets grouped by class name
- Defensive design techniques to prevent the Python scripts from inserting invalid data
- Python scripts to manipulate Excel spreadsheets to extract recent student data into one master spreadsheet
- A Google Script applied to a Google Sheet used to send emails to either students, parents, guardians, form tutors or other members of staff informing them of pupil progress
- Saves 5 hour of administrative tasks per week for 10 staff members
- Entire dataset was used to determine the effectiveness of remote learning

Stock Market Application   *Jan 2021 - Present*

- Used the Django framework to create a stock market application which collects stock data (eg. historical stock values, income statements to determine if there is evidence to buy or sell a particular stock.

Skills

- Relevant Courses: Data Structures and Algorithms, Computer Systems, Databases, Abstract Algebra
- Experience with writing Python restful applications and Django applications
- Programming Languages: Python, C, C++, Javascript
- Web design: HTML/CSS
- Database Languages: Sqlite3, mySQL
- Fluent in English and professionally proficient in French

Volunteering

Study Buddy Program – M. E. Lazerte High School, Eastglen High School **Edmonton**
Tutor *Jan 2016*
- Tutoring students from grades 10 to 12 mathematics for final exam purposes.

Building Bridges – University of Alberta **Edmonton**
Tutor, Mentor, and Coordinator *Jan 2016–Nov 2016*
- Tutoring and mentoring students from grades 1 to 12.
  Detailed achievements:
  - Inspired a student to experiment with computer programming and website design. In particular, I helped a student with python programming and static site generators using Jekyll.

Mentorship Program – Aldergrove Elementary School **Edmonton**
Mentor *Sept 2016*
- Working one-on-one or in small groups with Aldergrove students who have been identified as requiring intervention in mathematics or literacy

Students Offering Support – University of Alberta **Edmonton**
Tutor *April 2016 – Dec 2016*
- Helping university students for their Maths final exam through a series of lectures.

Agence Ometz **Montreal**
Junior Myp Mentor and Tutor *Jan 2015–Jul 2015*
- Helping young children from low-income families obtain the skills they need to succeed academically and socially.